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# Chronic CAD/Stable Ischemic Heart Disease

## IMPACT OF HEMODIALYSIS TO PREVALENCE AND COMPLEXITY OF CORONARY ARTERY DISEASE

ACC Moderated Poster Contributions

McCormick Place South, Hall A

Monday, March 26, 2012, 9:30 a.m.-10:30 a.m.

Session Title: When CAD Gets Really Bad: Renal Disease, Polyvascular Disease, and Diabetes

Abstract Category: 2. Chronic CAD/Stable Ischemic Heart Disease: Clinical

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**Background:** Patients on hemodialysis (HD) are high risk population of cardiovascular disease and death. However there is no previous study to evaluate objectively the impact of HD to coronary lesion complexity.

**Methods:** Subjects were 638 consecutive patients who underwent initial coronary angiography from December 2008 to August 2011. Sixty one patients on HD and 577 non-HD patients were analyzed from the aspect of prevalence of coronary artery disease or the lesion complexity. The complexity of coronary artery lesions were evaluated by using the SYNTAX score.

**Results:** No significant difference but only trend was observed about prevalence of coronary artery disease (HD; 55.7%, non-HD; 43.2%,  $p=0.060$ ). The prevalence of complex coronary artery disease (the SYNTAX score  $\geq 23$ ) was significantly higher in the patients on HD (HD; 27.9 %, non-HD; 13.3%,  $p<0.0001$ ). Patients on HD presented significantly higher SYNTAX score compared with non-HD patients ( $p<0.01$ ). After adjustment of sex, age, prevalence of diabetes, hypertension and dyslipidemia, HD showed independent predictive value for complex coronary artery disease (Odds ratio 2.627, 95%CI 1.368 to 5.043,  $p=0.0037$ ).

**Conclusions:** Patients on HD presented significantly higher SYNTAX score than non-HD patients. HD is an independent risk factor of complex coronary artery disease in the candidate for initial coronary angiography.

Adjusted Odds ratio of complex coronary lesion

|              | Odds ratio | 95% CI      | p value |
|--------------|------------|-------------|---------|
| Male sex     | 2.528      | 1.452-4.403 | .0010   |
| Age          | 1.048      | 1.023-1.073 | .0002   |
| Diabetes     | 3.056      | 1.881-4.963 | <.0001  |
| Hypertension | 1.285      | 0.786-2.101 | ns      |
| Dyslipidemia | 1.330      | 0.818-2.162 | ns      |
| Hemodialysis | 2.627      | 1.368-5.043 | .0037   |